Integrujte

(1) $\int \frac{1}{3-2x}\,\mathrm{d}x.$

(2) $\int \frac{1}{1+\left(\frac{2x}{3}+1\right)^2}\,\mathrm{d}x.$

(3) $\int \cos\left(3-\frac{x}{2}\right)\,\mathrm{d}x.$

(4) $\int \frac{3}{\sqrt{2-x}}\,\mathrm{d}x.$

(5) $\int (3x-1)^5\,\mathrm{d}x.$

(6) $\int \sqrt{-\frac{x}{2}-\frac{2}{3}}\,\mathrm{d}x.$

(7) $\int \mathrm{e}^{3x-2}\,\mathrm{d}x.$

(8) $\int \frac{1}{2-\frac{3}{4}x}\,\mathrm{d}x.$

(9) $\int \frac{-2}{\sqrt{(1-3x)^3}}\,\mathrm{d}x.$

(10) $\int \frac{1}{\left(3x+\frac{1}{2}\right)^2}\,\mathrm{d}x.$

(11) $\int \left(12-\frac{3x}{4}\right)^{31}\,\mathrm{d}x.$

(12) $\int \sin\left(\frac{3x}{2}+1\right)\,\mathrm{d}x.$

(13) $\int \frac{1}{x-3}\,\mathrm{d}x.$

(14) $\int \frac{1}{\sqrt[5]{(12-5x)^2}}\,\mathrm{d}x.$

(15) $\int \frac{1}{1+\left(2-\frac{x}{4}\right)^2}\,\mathrm{d}x.$

(16) $\int \sqrt[7]{(2-7x)^2}\,\mathrm{d}x.$

(17) $\int \mathrm{e}^{\frac{x}{3}-5}\,\mathrm{d}x.$

(18) $\int \frac{1}{\cos^2\left(\frac{x}{3}+2\right)}\,\mathrm{d}x.$

(19) $\int \frac{-1}{\sqrt{3-2x}}\,\mathrm{d}x.$

(20) $\int \frac{1}{\left(1-\frac{4x}{3}\right)^4}\,\mathrm{d}x.$

(21) $\int \frac{1}{\left(\frac{1}{5}-3x\right)^3}\,\mathrm{d}x.$

(22) $\int \sqrt{\frac{1}{3}-\frac{x}{2}}\,\mathrm{d}x.$

(23) $\int \mathrm{e}^{2-3x}\,\mathrm{d}x.$

(24) $\int \sqrt{2x-1}\,\mathrm{d}x.$

(25) $\int \sqrt[3]{(2-3x)^2}\,\mathrm{d}x.$

(26) $\int \mathrm{e}^{4-\frac{x}{3}}\,\mathrm{d}x.$

(27) $\int \sqrt[3]{2-\frac{x}{2}}\,\mathrm{d}x.$

(28) $\int \frac{1}{1+(2-x)^2}\,\mathrm{d}x.$

(29) $\int \frac{1}{\sin^2\left(1-\frac{3x}{2}\right)}\,\mathrm{d}x.$

(30) $\int -\sin\left(3-\frac{x}{2}\right)\,\mathrm{d}x.$

Integrujte

(1) $\displaystyle\int \frac{1}{3-2x}\,\mathrm{d}x = -\frac{1}{2}\ln(3-2x)+c.$

(2) $\displaystyle\int \frac{1}{\left(1+\frac{2x}{3}+1\right)^2}\,\mathrm{d}x = \frac{3}{2}\operatorname{arctg}\left(\frac{2x}{3}+1\right)+c.$

(3) $\displaystyle\int \cos\left(3-\frac{x}{2}\right)\mathrm{d}x = -2\sin\left(3-\frac{x}{2}\right)+c.$

(4) $\displaystyle\int \frac{3}{\sqrt{2-x}}\,\mathrm{d}x = -6\sqrt{2-x}+c.$

(5) $\displaystyle\int (3x-1)^5\,\mathrm{d}x = \frac{1}{18}(3x-1)^6+c.$

(6) $\displaystyle\int \sqrt{-\frac{x}{2}-\frac{2}{3}}\,\mathrm{d}x = -\frac{4}{3}\left(-\frac{x}{2}-\frac{2}{3}\right)^{3/2}+c.$

(7) $\displaystyle\int \mathrm{e}^{3x-2}\,\mathrm{d}x = \frac{1}{3}\mathrm{e}^{3x-2}+c.$

(8) $\displaystyle\int \frac{1}{2-\frac{3}{4}x}\,\mathrm{d}x = -\frac{4}{3}\ln(2-\frac{3}{4}x)+c.$

(9) $\displaystyle\int \frac{-2}{\sqrt{(1-3x)^3}}\,\mathrm{d}x = \frac{-4}{3\sqrt{1-3x}}+c.$

(10) $\displaystyle\int \frac{1}{\left(3x+\frac{1}{2}\right)^2}\,\mathrm{d}x = -\frac{1}{3(3x+\frac{1}{2})}+c.$

(11) $\displaystyle\int \left(12-\frac{3x}{4}\right)^{31}\mathrm{d}x = -\frac{1}{24}\left(12-\frac{3x}{4}\right)^{32}+c.$

(12) $\displaystyle\int \sin\left(\frac{3x}{2}+1\right)\mathrm{d}x = -\frac{2}{3}\cos\left(\frac{3x}{2}+1\right)+c.$

(13) $\displaystyle\int \frac{1}{x-3}\,\mathrm{d}x = \ln(x-3)+c.$

(14) $\displaystyle\int \frac{1}{\sqrt[5]{(12-5x)^2}}\,\mathrm{d}x = -\frac{1}{3}(12-5x)^{3/5}+c.$

(15) $\displaystyle\int \frac{1}{\left(2-\frac{x}{4}\right)^2+1}\,\mathrm{d}x = -4\operatorname{arctg}\left(2-\frac{x}{4}\right)+c.$

(16) $\displaystyle\int \sqrt[7]{(2-7x)^2}\,\mathrm{d}x = -\frac{1}{9}(2-7x)^{9/7}+c.$

(17) $\displaystyle\int \mathrm{e}^{\frac{x}{3}-5}\,\mathrm{d}x = 3\mathrm{e}^{\frac{x}{3}-5}+c.$

(18) $\displaystyle\int \frac{1}{\cos^2\left(\frac{x}{3}+2\right)}\,\mathrm{d}x = 3\operatorname{tg}\left(\frac{x}{3}+2\right)+c.$

(19) $\displaystyle\int \frac{-1}{\sqrt{3-2x}}\,\mathrm{d}x = \sqrt{3-2x}+c.$

(20) $\displaystyle\int \frac{1}{\left(1-\frac{4x}{3}\right)^4}\,\mathrm{d}x = \frac{1}{4\left(1-\frac{4x}{3}\right)^3}+c.$

(21) $\displaystyle\int \frac{1}{\left(\frac{1}{5}-3x\right)^3}\,\mathrm{d}x = \frac{1}{6\left(\frac{1}{5}-3x\right)^2}+c.$

(22) $\displaystyle\int \sqrt{\frac{1}{3}-\frac{x}{2}}\,\mathrm{d}x = -\frac{4}{3}\left(\frac{1}{3}-\frac{x}{2}\right)^{3/2}+c.$

(23) $\displaystyle\int \mathrm{e}^{2-3x}\,\mathrm{d}x = -\frac{1}{3}\mathrm{e}^{2-3x}+c.$

(24) $\displaystyle\int \sqrt{2x-1}\,\mathrm{d}x = \frac{\sqrt{(2x-1)^3}}{3}+c.$

(25) $\displaystyle\int \sqrt[3]{(2-3x)^2}\,\mathrm{d}x = -\frac{1}{5}\sqrt[3]{(2-3x)^5}+c.$

(26) $\displaystyle\int \mathrm{e}^{4-\frac{x}{3}}\,\mathrm{d}x = -3\mathrm{e}^{4-\frac{x}{3}}+c.$

(27) $\displaystyle\int \sqrt[3]{2-\frac{x}{2}}\,\mathrm{d}x = -\frac{3}{2}\left(2-\frac{x}{2}\right)^{4/3}+c.$

(28) $\displaystyle\int \frac{1}{1+(2-x)^2}\,\mathrm{d}x = -\operatorname{arctg}(2-x)+c.$

(29) $\displaystyle\int \frac{1}{\sin^2\left(1-\frac{3x}{2}\right)}\,\mathrm{d}x = -\frac{2}{3}\operatorname{cotg}\left(\frac{3x}{2}-1\right)+c.$

(30) $\displaystyle\int -\sin\left(3-\frac{x}{2}\right)\,\mathrm{d}x = -2\cos\left(3-\frac{x}{2}\right)+c.$